

ACTION OF GELSEMIUM ON THE CENTRAL NERVOUS SYSTEM. R. H. Whitehead (N. Y. Medical Journ., Aug. 18, 1900).

Since the Nissl method for staining nervous tissues has come into general use by histologists and pathologists, the action of numerous drugs upon the nervous system has been microscopically investigated. The author has reported on the changes which he has observed in the cranial nerve nuclei after poisonous doses of gelsemium. Acute poisoning of a two-months'-old rabbit resulted in "initial chromatolysis." The Nissl bodies were abnormally large and indistinct. The achromatic spaces were smaller and often faintly stained and since the chromatic bodies were not deeply colored the cell-body had the appearance of a spongy fibroid mass with but little achromatic substance. In cases of slow poisoning the Nissl bodies were few in number, large in size, and situated principally around the nucleus. In some cells they also seem to be much fragmented. He believes that toxic doses of gelsemium produce chromatolysis of the cells which constitute the nuclei of the motor cerebral nerves, and that the alterations are not specific, but are very similar to the changes produced by other toxic substances on the motor cells.

JELLIFFE.

PATHOLOGY.

BEFUNDE BEI EINSEITIGER KLEINHIRNATAXIE MIT GEKREUZTER LÄHMUNG (Findings in a Case of Unilateral Cerebellar Ataxia, with crossed Paralysis). G. Anton (Jahrbücher für Psychiatrie und Neurologie, Vol. 19, 1900, p. 309).

A case with autopsy, which throws some light on the much-discussed question of cerebellar ataxia in regard to the basis of its condition, whether it is a simple weakness of motion or a disturbance of muscular co-ordination and how much weight should be given to the asthenia and how much to the ataxia. The case was one of a disturbance of motility, having for a basis a cerebral and a cerebellar disease in the same individual. A man fifty-five years old, non-alcoholic, had been suffering for some time with dizziness, palpitation, headache, etc. After walking in the sun he was suddenly attacked with weakness and trembling of the lower extremities. He was brought into the hospital in an apathetic condition, speech indistinct and slow and difficult to understand. The left upper and lower extremities extremely paretic, left facial paresis, especially marked in the muscles around the mouth, eye and forehead anesthetic on the left side, muscular sense on this side affected. Knee-jerk much diminished on left side, plantar reflex on both sides active. Muscle tonus on both sides normal. Before death, which took place seven months later, from exhaustion, the pupils did not react to light, the tongue was paretic, ataxia and convulsive movements also on the right side. The macroscopic findings are briefly as follows. The vessel walls of the carotid system showed moderately thickened coats. The right arteria cerebri posterior, a few mm. from its branching from the basilar, showed the presence of a thrombus, about 1 cm. in length. The neighboring arteria cerebelli superior likewise thrombosed from its point of branching. Softening and resorption of the medial aspect of the right temporal brain could be seen corresponding to the distribution of the thrombosed vessels. The surface of the right cerebellar hemisphere was softened as far as the white substance. A portion of the right gyrus hippocampi and the occipitotemporalis and a portion of the fourth parietal convolution were soft-

tened. Ischemic softening of the posterior knee of the capsula interna and of the ventral portion of the corpora quadrigemina were present. The brain and cord, studied in serial sections microscopically, gave in brief the following results: The softening observed macroscopically was microscopically demonstrated, as also the inferior lip of the calcarine fissure at the gyrus lingualis. As a result of the softening of the Ammonshorn and the fascia dentata the fornix in its greatest extent showed descending degeneration of its fibers. Secondary degeneration was found in the pyramidal tract and in the foot of the cruri cerebri the tract joining the parietal lobe with the cerebellum. The latter degeneration could be followed through the pons to the hemisphere of the cerebellum of the other side. The medial bundle of the foot of the crura remained unaffected. The degeneration was especially well marked in the parietal lobe. A portion of the lateral ventricle wall, the projection strata of the parietal lobe to very nearly the level of the incoming fibers of the commissura anterior were degenerated. The degeneration of the projection system in the parietal lobe was in continuity with the degenerated portion of the corpora quadrigemina. In the medulla the middle and outer portion of the "Strichkörper" and the external and internal arcuate fibers, the cerebellar olivary tract, including the external region of the right and the internal hilus of the left olive were degenerated. In the cervical cord the pyramids, the territory of the periphery were clearly degenerated. As a result of the cerebellar defect, a descending degeneration of the lateral peripheral fibers of the same side of the cord and to a less extent on the other side, were found degenerated. On the same side the Clarke cells were atrophied and in part absorbed. The relation of the clinical symptoms to the anatomical condition is stated as follows: The left-sided paresis is an evident result of the disturbance to the internal capsule and the degeneration of the pyramids, in the same way the loss of cutaneous and deep sensibility is due to the break in conduction in the fibers of the posterior knee of the internal capsule. The ataxia and the tremor, suddenly appearing on the right side, before this intact, are due in all probability to a fresh injury of the cerebellum, the attack being ushered in by vomiting and vertigo.

SCHWAB.

NATURE ET TRAITEMENT DE LA MYELITE AIGUE (Nature and Treatment of Acute Myelitis). G. Marinesco (Nouvelle Iconographie de la Salpêtrière, 13th Year, No. 6, Nov.-Dec., 1900, p. 561).

Every acute myelitis is characterized by multiple processes of reaction from the side of the vessels, interstitial tissue and nerve cells. The two first constitute the active processes of multiplication and proliferation, giving rise in this way to more or less extensive foci and to nodules.

The phenomena of reaction on the part of the nerve cells lead rapidly to their degeneration. The apparent lesion which is commonly seen in every acute myelitis is hemorrhagic softening, a lesion which is the consequence of circulatory disturbances caused by toxic and infectious agents, the only factors which cause an acute myelitis.

Following the extent and the topography of these vascular lesions, it can be admitted with Goldscheider and Leyden that there are several varieties:

Transverse myelitis, diffuse ascending and descending myelitis, disseminated myelitides, and poliomyelitis.

The vascular and infectious nature of this last has been brought